

U.S. APPLICATION NO. **09/582969**INTERNATIONAL APPLICATION NO
PCT/DE98/03679ATTORNEY'S DOCKET NUMBER
P00,125217. ☒ The following fees are submitted:**BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):**

Search Report has been prepared by the EPO or JPO \$840.00

International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) ... \$670.00

No international preliminary examination fee paid to USPTO (37 C.F.R. 1.482) but
international search fee paid to USPTO (37 C.F.R. 1.445(a)(2)) \$760.00Neither international preliminary examination fee (37 C.F.R. 1.482) nor international
search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO \$970.00International preliminary examination fee paid to USPTO (37 C.F.R. 1.482) and all
claims satisfied provisions of PCT Article 33(2)-(4) \$ 96.00**ENTER APPROPRIATE BASIC FEE AMOUNT =**

CALCULATIONS

PTO USE ONLY

\$ 840.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months
from the earliest claimed priority date (37 C.F.R. 1.492(e)).

\$

Claims

Number Filed

Number
Extra

Rate

Total Claims

14

- 20 =

0

X \$ 18.00

\$

Independent Claims

02

- 3 =

0

X \$ 78.00

\$

Multiple Dependent Claims

\$260.00 +

\$

TOTAL OF ABOVE CALCULATIONS =

\$ 840.00

Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also
be filed. (Note 37 C.F.R. 1.9, 1.27, 1.28)

\$

SUBTOTAL =

\$ 840.00

Processing fee of \$130.00 for furnishing the English translation later than ☐ 20 ☐ 30 months
from the earliest claimed priority date (37 CFR 1.492(f)).

\$

TOTAL NATIONAL FEE =

\$ 840.00

Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be
accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). \$40.00 per property

+

TOTAL FEES ENCLOSED =

\$ 840.00

Amount to be
refunded

\$

charged

\$

- a. ☒ A check in the amount of \$ 840.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 08-2290. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Hill & Simpson
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85th Floor Sears Tower
Chicago, Illinois 60606

SIGNATURE

Steven H. Noll

NAME

28,982
Registration Number

09/582969

534 Rec'd PCT/PTC 07 JUL 2000

-1-

BOX PCT
IN THE UNITED STATES ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5 APPLICANT(S): Peter Moritz
DOCKET NO: P00,1252
INTERNATIONAL APPLICATION NO: PCT/DE98/03679
INTERNATIONAL FILING DATE: 15 DECEMBER 1998
10 INVENTION: **METHOD AND APPARATUS FOR RELOCATING A
PART OF A SERVICE LOGIC PROGRAM AND FOR
COMMUNICATION BETWEEN THE RELOCATED
PART AND THE PART OF THIS SERVICE LOGIC
PROGRAM REMAINING AT THE SERVICE PROVIDER
IN AN INTELLIGENT NETWORK**
15 Assistant Commissioner for Patents,
Washington, D.C. 20231

REQUEST FOR APPROVAL OF DRAWING CHANGES

Dear Sir:

20 The Applicants respectfully request consideration and approval of
changes made to the Figure in order to label previously unlabeled blocks in
conformance with U.S. Patent practice.

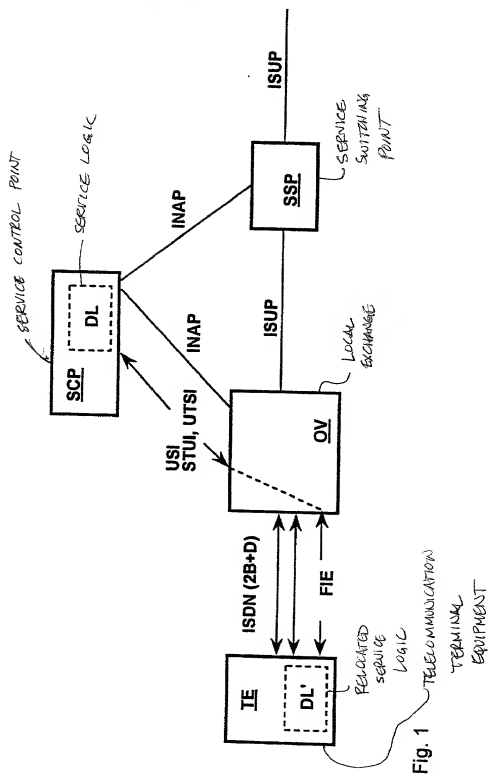
Respectfully submitted,

Steven H. Noll

(Reg. No. 28,982)

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30 Attorneys for Applicant

1/1



- 1 -

BOX PCT
IN THE UNITED STATES ELECTED OFFICE
OF THE UNITED STATES PATENT AND TRADEMARK OFFICE
UNDER THE PATENT COOPERATION TREATY-CHAPTER II

5

AMENDMENT "A" PRIOR TO ACTION

APPLICANT(S): Peter Moritz
DOCKET NO: P00,1252
INTERNATIONAL APPLICATION NO: PCT/DE98/03679
INTERNATIONAL FILING DATE: 15 DECEMBER 1998

10

INVENTION: **METHOD AND APPARATUS FOR RELOCATING A
PART OF A SERVICE LOGIC PROGRAM AND FOR
COMMUNICATION BETWEEN THE RELOCATED
PART AND THE PART OF THIS SERVICE LOGIC
PROGRAM REMAINING AT THE SERVICE PROVIDER
IN AN INTELLIGENT NETWORK**

15

Assistant Commissioner for Patents,
Washington, D.C. 20231

Sir:

Applicants amend the above-identified PCT application as follows,
and request entry of the Amendment prior to examination in the United
States National Examination Phase.

IN THE SPECIFICATION:

On page 1:

after line 5, as a separate line before line 6, insert the following
heading:

25

--BACKGROUND OF THE INVENTION--;

delete lines 6-7 and insert the following:

--Increased advances in the use of intelligent networks (IN) are

occurring in the field of telecommunications. These advances have relied upon an--;

delete lines 12-17 and insert the following paragraph:

5 --There are three critical function units in an intelligent network: call-
handling functions (for example, call handling, the basic functions of
telecommunication networks); service execution functions (for example,
switching, resource control); and service management functions SMF
(including development, offering, administering IN services).--;

10 line 19, replace "thereat" with --in the SCP--;
line 20, replace "whereby" with --wherein--;
line 21, delete "respectively", and delete "here";
line 25, replace "The service logic thereby" with --Hence, the
service logic--;
line 26, replace "for instance" with --such as--; and
15 line 28, after ")" insert --, for example--.

On page 2:

line 1, delete "(for instance"; after "or" insert --,--; and replace ")" with
--, for instance,--;

20 line 4, replace "for instance" with --such as--;
after line 11, as a separate line before line 12, insert the following
heading:

--SUMMARY OF THE INVENTION--;

25 line 15, replace "object is" with --and other objects are--; replace "in
that" with --by--; and delete "is defined";
line 17, replace "thereat" with --at the various entities--;
line 20, after "example" insert --,--; and
delete lines 29 and 30.

On page 3:

line 2, replace "therewith" with --according to the present invention--;
and replace "meaningful" with --significant--;

line 4, replace "meaningful" with --significant--; and replace "for
5 example" with --e.g.--;

replace line 5 with the following: --central entity and the relocated
part (i.e., the terminal equipment). The--;

delete lines 8 and 9 and insert the following:

--Additional advantages and novel features of the invention will be
10 set forth, in part, in the description that follows and, in part, will become
apparent to those skilled in the art upon examination of the following or may
be learned by practice of the invention. The advantages of the invention
may be realized and attained by means of the instrumentalities and
combinations particularly pointed out in the appended claims.

15 **BRIEF DESCRIPTION OF THE DRAWINGS**

Reference is made to the attached Figure. This Figure shows a
structure with a part of an intelligent network according to an embodiment of
the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS--;

20 line 13, replace "The" (first occurrence) with --A--; delete "thereby";
and replace "the" (third occurrence) with --a--; and
line 25, delete "[...] for the".

On page 4:

replace lines 1-13 with the following paragraph:
25 --the connection is automatically operational when the device that
contains the relocated part is connected or turned on; high outage

dependability and recovery capability after a connection outage;
employment of the existing physical connections of the external
device to the IN; parallel payload channels dare not be influenced.
The service logic must thereby satisfy the following conditions:
5 no manual interventions needed at the device for administration and
operation; security assured, for instance by unambiguously
assigned identities, whereby the existing numberings should be
employable for the addressing; and suitable for a multitude of device
types and interfaces.--

10 line 17, after "as" insert --a--;

line 18, replace "They are inventively" with --The FIE elements--;

and

line 26, delete "thereby".

On page 5:

15 line 3, delete ", respectively, ";

line 12, after "Java" insert --®--;

line 13, delete "is already prepared for this"; and after "Java" insert
--®--;

line 14, replace "JTAPI" with --(JTAPI) is already prepared for this--;

20 line 15, replace "this" with --JTAPI--;

line 18, after "Java" insert --®--;

line 20, replace "," with --and--;

line 21, after "Java" insert --®--;

line 23, replace "meaningful" with --significant--;

25 line 26, replace "ensues" with --is performed--; and

line 27, replace "What is thereby involved is" with --Transmission of
the charge ticket includes--.

On page 6:

line 1, replace "Since it" with --It--; and after line 17 insert the following paragraph:

5 --While this invention has been described in connection with what are presently considered to be the most practical and preferred embodiments, it is to be understood that the invention is not limited to the disclosed embodiment, but, on the contrary, is intended to cover various modifications and equivalent arrangements included within the spirit and scope of the appended claims.--.

10 **On page 7:**

delete lines 1-28, respectively.

IN THE DRAWINGS:

The Applicants have filed concurrently herewith a Request for Approval of Drawing Changes in order to label previously unlabeled blocks.

15 **IN THE CLAIMS:**

On substitute page 8, line 1, please change "Patent Claims" to --What is claimed is:--.

Delete claims 1-11 on substitute pages 8 and 9 without prejudice or disclaimer.

20 **Please add the following new claims 12 - 25:**

12. A method for offering telecommunication service in an intelligent network comprised of a service logic, the method comprising:

implementing a first part of the service logic within a central unit; and
implementing a second part of the service logic outside the central
unit.

5 13. The method according to claim 12, wherein the second
part of the service logic is implemented in the telecommunication terminal
equipment of a service user.

 14. The method according to claim 13, wherein a connection
exists between the first part of the service logic and the second part of the
service logic.

10 15. The method according to claim 14, wherein the
connection between the first part of the service logic and the second part of
the service logic uses an existing connection of the telecommunication
terminal equipment with the central unit.

 16. The method according to claim 14, wherein at least a part
15 of the connection of the first part of the service logic and the second part of
the service logic utilizes an ISDN connection.

 17. The method according to claim 12, wherein charge
information is at least partly generated by the second part of the service
logic.

18. The method according to claim 17, wherein the second part of the service logic sends a proposal for the charge information to the first part of the service logic, which then further processes the charge information.

5 19. The method according to claim 18, wherein the first part of the service logic checks whether a charge proposal is acceptable when the charge proposal is received by the second part of the service logic, and initiates review of the second part of the service logic when a result of this check is positive.

10 20. The method according to claim 18, wherein review of the second part of the service logic is initiated when the proposal for the charge information fails to arrive at the first part of the service logic.

21. The method according to claim 18, wherein the first part of the service logic checks whether a charge proposal is acceptable when the charge proposal is received by the second part of the service logic, and forwards the charge proposal to an entity responsible for billing when a result of this check is positive

15

22. A terminal equipment in a telecommunications network that is an intelligent network, comprising:

20 a storage that stores a service logic, the service logic having a first part stored in the terminal equipment and a second part stored in a central part of the intelligent network;

a processor for processing the service logic; and

a communication device for communicating between the first and second parts of the service logic.

5 23. The terminal equipment according to claim 22, further comprising:

 an application programming interface that provides a uniform horizontal
interface for the exchange of IN messages between the first part of the service
logic stored on the terminal equipment and the second part of the service logic
stored in the central part of the intelligent network.

10

 24. The terminal equipment according to claim 23, wherein the
application programming interface API is realized in JTAPI based on Java
technology.

 25. The terminal equipment according claim 23, wherein
15 connection of the terminal equipment to the telecommunications network occurs
via an ISDN line.

IN THE ABSTRACT

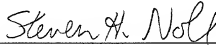
Delete page 10 and replace the Abstract with Replacement Page 10
which is provided herewith on a separate sheet attached to the amendment.

REMARKS

The present amendment makes editorial changes to the specification, drawings, claims and Abstract in order to conform to United States Patent Practice. Additionally, the Applicants include herewith a copy of the new Abstract on a separate page. None of the changes in the claims is intended as a surrender of any of the subject matter within the scope of the original claim language since, as noted above, all of these changes have been made solely to bring the claims into conformity with the requirements of 35 U.S.C. §112, second paragraph.

Early consideration of the application is respectfully requested.

Respectfully submitted,

 (Reg. No. 28,982)

Steven H. Noll
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Attorneys for Applicant

Abstract

A method is defined with which various parts of a service logic are distributed onto different entities of a system and can collaborate and communicate with one another. An apparatus is specified with which a customer of an intelligent network can use a service at a provider, the service logic thereof running partly centrally at the service provider and partly relocated in, for example, the terminal equipment of the customer.

**METHOD AND APPARATUS FOR RELOCATING A PART OF A SERVICE
LOGIC PROGRAM AND FOR COMMUNICATION BETWEEN THE
RELOCATED PART AND THE PART OF THIS SERVICE LOGIC
PROGRAM REMAINING AT THE SERVICE PROVIDER IN AN**

5 INTELLIGENT NETWORK

A farther and farther-reaching use of the technology of intelligent networks IN is being made in the field of telecommunications. What is thereby involved is an architectural concept that, among other things, allows network operators to define and offer telecommunication services for their customers in a simple way. The architecture
10 can be applied to many telecommunication networks such as, for example, PSTN or N-ISDN.

There are three critical function units in an intelligent network:

- call-handling functions (for example, call handling, the basic functions of telecommunication networks)
- 15 • service execution functions (for example, switching, resource control)
- service management functions SMF (including development, offering, administering IN services).

One result of the SMF is the service logic program that can be loaded onto a service control point SCP and be implemented thereat. It is also possible to
20 distribute this service logic onto a plurality of SCPs, whereby a complete copy of the service logic program is respectively employed here. The service logic program is implemented when a service call from a service user arrives at a switching center (service switching point SSP).

An important point in producing services in an intelligent network is
25 charging for these services. The service logic thereby generates a charge information (charging ticket), for instance in the form
TC_CONTINUE(FurnishChargingInformation, SendChargingInformation, Connect)
(see Q.1218 with respect thereto). These information are delivered to a central location (billing center) and processed there. The data contained therein are employed

for charging the account of the customer or (for instance in the case of “free phone”) the account of the service subscriber or both accounts.

A special characteristic of this procedure is the possibility of also modifying the current charge rate during an existing connection, for instance upon entry into a new rate time, discount given long calls or the like.

With the intensified introduction of computer telephony integration (CTI) and the continued development of distributed applications like Java, the services offered in the IN will also change in future. For this purpose, it will become necessary to install “more intelligent” devices at, for example, the ultimate consumer. In order to also completely exploit the additional possibilities of these devices, it will be necessary to expand the concept of the intelligent networks.

An object of the invention is to offer service providers and service users in a communications network a more flexible possibility of having the service logic needed for an offered service run.

This object is achieved in that a method is defined with which various parts of a service logic can be distributed onto various entities of a system and can collaborate and communicate with one another thereat. An apparatus is specified with which a customer of an intelligent network can use a service at a provider, the service logic thereof running partly centrally at the service provider and partly relocated, for example in the terminal equipment of the customer.

The definition and offering of new services becomes possible due to the division of the service logic into a centralized part and a decentralized part. For example, additional information about connections can be made available to the customer, these being capable of being further-processed or interpreted in some other way. Momentarily existing media failures can be avoided. For instance, the customer searches a telephone number via his PC and immediately dials the desired number by pressing a button at the PC. Further usage possibilities of the connections for which a “more intelligent” terminal device is required can be opened up.

Advantageous developments and improvements are provided in the subclaims.

The division of the service logic thereby derives from the type of logic and the service realized therewith. In most instances, it will be meaningful to place the relocated part of the service logic on the terminal equipment of the customer. It is also meaningful to use the connections (for example, ISDN) that already exist between the central entity and the relocated part, i.e., for instance, the terminal equipment. That part of the service logic that is responsible for generating the charge information must be given special consideration.

The invention is explained below on the basis of exemplary embodiments. The Figure thereby shows a possible structure with a part of an intelligent network.

The Figure shows a schematic arrangement of the distribution of a service logic in an intelligent network IN and the communication between the parts of the service logic required therefor.

The central part of the service logic DL is thereby located in the service control point SCP. The relocated part of the corresponding service logic DL' is located on the telecommunication terminal equipment TE of the service user in this example. The two parts of the service logic are connected to one another by a local exchange OV. The terminal equipment is thereby connected to the local exchange OV with an ISDN line. For example, the control signals are communicated on this connection with facility information elements FIE via the D-channel of the ISDN line. The local exchange OV is in turn connected to the service control point SCP on which the central part of the service logic runs. This connection occurs with the expanded INAP (intelligent network application protocol). At the other side, the service user is also connected via the local exchange to a switching node (service switching point SSP) of the intelligent network.

In this case, [...] for the communication of the relocated part of the service logic DL' with the central part of the service logic DL can be implemented on the SCP with communication mechanisms that are already known and that must be somewhat expanded for this purpose.

The data communication connection between the relocated parts and the central part of the service logic must meet the following demands:

- the connection is automatically operational when the device that contains the relocated part is connected or turned on;
 - high outage dependability and recovery capability after a connection outage;
- 5 • employment of the existing physical connections of the external device to the IN;
- parallel payload channels dare not be influenced.

The service logic must thereby satisfy the following conditions:

- 10 • no manual interventions needed at the device for administration and operation;
- security assured, for instance by unambiguously assigned identities, whereby the existing numberings should be employable for the addressing;
 - suitable for a multitude of device types and interfaces.

- What are referred to as facility information elements FIE can be employed
- 15 in this case for the first part of the link that, for example, leads via an existing ISDN connection from the service user to the local exchange. The D-channel provided for signalling in ISDN can be employed as connecting path. These FIE elements are already known from the ETS 300 196-1. They are inventively assigned the job of functioning as containers for IN services. The content of these FIEs, normally referred
- 20 to as “component”, is “pre-”used in order to control what are referred to as supplementary services. The exact structure of the components is subject to the rules of BER and ASN.1. No expansion in the definitions of the FIE in the Standard is necessary.

- User to service information (USI) signalling has already been designed for
- 25 “call unrelated services” such as, for example, the short message service. This is thereby composed of two parts: the service-to-user information (STUI) part and, in the opposite direction, the user-to-service information (UTSI) part.
- Up to now, this signalling was not yet employed for the service control. As a result of an expansion of the USI method standardized in the INAP, the control of the service
- 30 logic can be implemented here via the CCS7 network that already exists.

The following operations must be transferred from the norm Q.1218 (in a more recent generation, Q.1228, Capability Set CS-2 for intelligent networks) and must be adapted or, respectively, recreated:

- | | | | |
|---|-------------------|----------|--|
| 5 | ReportUTSI | (OV→SCF) | Reports UTSI information elements (like SSF-SCF interface) |
| | RequestReportUTSI | (SCF→OV) | Requests the monitoring of UTSI elements (like SSF-SCF interface) |
| | SendSTUI | (SCF→OV) | Requests an STUI information element at the SSF (like ITU-T Q.1228 SSF-SCF). |

- 10 In this solution, one is dependent on the existence of an ISDN connection to the terminal equipment. In order to assure a greater variety of terminal equipment and interfaces, a further possible realization composed of Java technology is available. A programming interface is already prepared for this, what is referred to as the Java telephony application programming interface JTAPI.
- 15 A description of this is found, for example, at <http://java.sun.com/products/jtapi>.

- Applications in the telecommunications area can be realized in a simple way with the object-oriented development environment in the modular system. The JTAPI call model is composed of six different Java objects that respectively represent a conceptual or physical entity in the telecommunication. Various hardware platforms
- 20 and software interfaces are covered; a security mechanism is likewise already provided. (Java is a trademark of Sun Microsystems.)

- The charge information is again considerably separately below. It can be meaningful that a charge information ticket is not generated from the central entity but from the part of the service logic that is located in the relocated part of the service
- 25 logic.

The transmission of the charge ticket ensues according to the same strategy that was already described in detail above. What is thereby involved is the charging function in conformity with the contract between network operator, subscriber and customer.

Since it must be assured, however, that no fraudulent tickets proceed to the billing center, which then processes the tickets.

Falsifications can be prevented by traditional methods like the insertion of a signature.

Another possibility of preventing fraudulent tickets is performed by checking all charge

- 5 tickets with the central part of the service logic. Thus, the charge tickets of the relocated part of the service logic are viewed as “proposals” or “drafts” that can be accepted, modified or rejected by the central part of the service logic before they are forwarded for final processing to the billing center (the central entity that monitors and logs the charging of the service offering).

- 10 When the central part of the service logic receives such a charge ticket, it should review the plausibility of the requested charge. Insofar as this is assured, the ticket can be forwarded to the billing center with or without changes.

When the charge tickets received from the relocated entity are not correct or fail to arrive, the central part of the service logic must trigger a reaction. This can occur due

- 15 to transmission errors or as a result of an explicit manipulation. Possible reactions are, for example, the immediate release of the connection, generating a “fraud ticket” or at least overwriting the incorrect ticket.

List of References

ETS 300 196-1 (August 1993)

Integrated Services Digital Network (ISDN);

Generic functional protocol for the support of supplementary services; Digital

- 5 Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol Specification

ITU-T Recommendation Q.1218 (10/95)

Intelligent Network,

Interface Recommendation for Intelligent Network CORRESPONDS-1

List of Abbreviations

- | | | |
|----|-------|--|
| 10 | ASN:1 | Abstract Syntax Notation 1 |
| | BER | Basic Encoding Rules |
| | CCS7 | Common Channel Signalling No. 7 |
| | CTI | Computer Telephony Integration |
| | FIE | Facility Information Element |
| 15 | INAP | Intelligent Network Application Protocol |
| | ISDN | Integrated Services Digital Network |
| | ISUP | Integrated Services User Part |
| | JTAPI | Java Telephony Application Programming Interface |
| | PSTN | Public Switched Telephone Network |
| 20 | USI | User to Service Information |
| | UTSI | User to Service Information |
| | SCCP | Signalling Connection Control Part |
| | SCF | Service Control Function |
| | SCP | Service Control Part |
| 25 | SMF | Service Management Function |
| | SSP | Service Switching Point |
| | STUI | Service to User Information |
| | TCAP | Transaction Control Application Part |

Patent Claims

1. Method for offering a telecommunication service in an intelligent network, composed of a service logic, whereby
-- a first part of the service logic (DL) is implemented in a central unit (SCP) and
5 -- a second part of the service logic (DL') is implemented outside the central unit,
characterized in that
the second part of the service logic (DL') sends a proposal for the charge information
10 to the first part of the service logic (DL), whereat it is then further-processed.
2. Method according to claim 1, characterized in that, upon receipt of a charge proposal by the second part of the service logic (DL'), the first part of the service logic (DL) checks whether the charge proposal is acceptable and, given a negative result of this check, initiates suitable measures for reviewing the second part
15 of the service logic (DL').
3. Method according to claim 1 or 2, characterized in that, upon receipt of a charge proposal by the second part of the service logic (DL'), the first part of the service logic (DL) checks whether the charge proposal is acceptable and, given a positive result of this check, forwards the charge proposal to an entity (billing center)
20 responsible for the billing.
4. Method according to claim 1, characterized in that suitable measures for reviewing the second part of the service logic (DL') are initiated given a failure of the charge proposal to arrive.
5. Method for offering a telecommunication service in an intelligent
25 network, composed of a service logic, whereby
-- a first part of the service logic (DL) is implemented in a central unit (SCP) and
-- a second part of the service logic (DL') is implemented outside the central unit,
30 characterized in that

a connection of the first (DL) and of the second part (DL') of the service logic is produced:

- from the central unit (SCP) to a switching center (OV) via a first transmission protocol (USI, INAP),
- 5 -- from the switching center (OV) to the location (TE) of the implementation of the second part of the service logic (DL') via a second transmission protocol (ISDN, FIE).

6. Method according to claim 5, characterized in that the part of the service logic implemented outside the central unit is implemented in the
10 telecommunication terminal equipment (TE) of the service user.

7. Method according to one of the claims 5 or 6, characterized in that the charge information is at least partly generated by the second part of the service logic (DL').

8. Terminal equipment in a telecommunications network, comprising
- 15 a) means for storing a service logic,
 - b) means for processing a service logic, and
 - c) means for communication with a central unit in an intelligent network and with
 - d) means for generating a charge information.

9. Terminal equipment according to claim 8, characterized by an
20 application programming interface API that offers a uniform horizontal interface for the exchange of IN messages between the part of the service logic stored on the terminal equipment and the part of the service logic stored in the central part of the intelligent network.

10. Terminal equipment according to claim 9, characterized in that the API
25 is realized in JTAPI based on Java technology.

11. Terminal equipment according to one of the claims 8 through 10, characterized in that the connection of the terminal equipment to the telecommunications network occurs via an ISDN line.

Abstract

Method and Apparatus for Relocating a Part of a Service Logic Program and for Communication Between the Relocated Part and the Part of this Service Logic Program Remaining at the Service Provider in an Intelligent Network

- 5 A method is defined with which various parts of a service logic (DL, DL') are distributed onto different entities of a system and can collaborate and communicate with one another thereat. An apparatus is specified with which a customer of an intelligent network can use a service at a provider, the service logic thereof running partly centrally at the service provider and partly relocated in, for example, the
- 10 terminal equipment of the customer.

Declaration and Power of Attorney For Patent Application

Erklärung Für Patentanmeldungen Mit Vollmacht

German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit
an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine
Staatsangehörigkeit den im Nachstehenden nach
meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are
as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche,
erste und alleinige Erfinder (falls nachstehend nur ein
Name angegeben ist) oder ein ursprünglicher, erster
und Miterfinder (falls nachstehend mehrere Namen
aufgeführt sind) des Gegenstandes bin, für den dieser
Antrag gestellt wird und für den ein Patent beantragt
wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if
only one name is listed below) or an original, first and
joint inventor (if plural names are listed below) of the
subject matter which is claimed and for which a patent
is sought on the invention entitled

Vorrichtung und Verfahren zur Auslagerung
eines Teils eines Dienstlogik Programms und
zur Kommunikation zwischen dem ausge-
lagerten Teil und dem beim Diensterbringer
verbliebenen Teil dieses Dienstlogik
Programms in einem Intelligenten Netz.

deren Beschreibung

the specification of which

(zutreffendes ankreuzen)

(check one)

☒ hier beigefügt ist.

☐ is attached hereto.

☐ am _____ als

☐ was filed on _____ as

PCT internationale Anmeldung

PCT international application

PCT Anmeldungsnummer _____

PCT Application No. _____

eingereicht wurde und am _____

and was amended on _____

abgeändert wurde (falls tatsächlich abgeändert).

(if applicable)

Ich bestätige hiermit, dass ich den Inhalt der obigen
Patentanmeldung einschliesslich der Ansprüche
durchgesehen und verstanden habe, die eventuell
durch einen Zusatzantrag wie oben erwähnt abgeän-
dert wurde.

I hereby state that I have reviewed and understand the
contents of the above identified specification,
including the claims as amended by any amendment
referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwel-
cher Informationen, die für die Prüfung der vorliegen-
den Anmeldung in Einklang mit Absatz 37, Bundes-
gesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind,
an.

I acknowledge the duty to disclose information which
is material to the examination of this application in
accordance with Title 37, Code of Federal
Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvor-
teile gemäss Abschnitt 35 der Zivilprozessordnung der
Vereinigten Staaten, Paragraph 119 aller unten ange-
gebenen Auslandsanmeldungen für ein Patent oder
eine Erfindersurkunde, und habe auch alle Auslands-
anmeldungen für ein Patent oder eine Erfindersurkun-
de nachstehend gekennzeichnet, die ein Anmelde-
datum haben, das vor dem Anmeldedatum der
Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35,
United States Code, §119 of any foreign application(s)
for patent or inventor's certificate listed below and
have also identified below any foreign application for
patent or inventor's certificate having a filing date
before that of the application on which priority is
claimed:

German Language Declaration

Prior foreign applications
Priorität beansprucht

Priority Claimed

19800644.6 Germany 09.Januar 1998
(Number) (Country) (Day Month Year Filed)
(Number) (Land) (Tag Monat Jahr eingereicht)

☒ ☐
Yes No
Ja Nein

(Number) (Country) (Day Month Year Filed)
(Number) (Land) (Tag Monat Jahr eingereicht)

☐ ☐
Yes No
Ja Nein

(Number) (Country) (Day Month Year Filed)
(Number) (Land) (Tag Monat Jahr eingereicht)

☐ ☐
Yes No
Ja Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgegeben)

(Status)
(patented, pending,
abandoned)

(Application Serial No.)
(Anmeldeseriennummer)

(Filing Date)
(Anmeldedatum)

(Status)
(patentiert, anhängig,
aufgegeben)

(Status)
(patented, pending,
abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden können, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

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German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: (Name und Registrationsnummer anführen)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Messrs. John D. Simpson (Registration No. 19,842) Lewis T. Steadman (17,074), William C. Stueber (16,453), P. Phillips Connor (19,259), Dennis A. Gross (24,410), Marvin Moody (16,548), Steven H. Noll (28,982), Brett A. Valiquet (27,341), Thomas I. Ross (29,275), Kevin W. Gynn (29,927), Edward A. Lehmann (22,312), James D. Hobart (24,149), Robert M. Barrett (30,142), James Van Santen (16,584), J. Arthur Gross (13,615), Richard J. Schwarz (13,472) and Melvin A. Robinson (31,879), David R. Metzger (32,919), John R. Garrett (27,888) all members of the firm of Hill, Steadman & Simpson, A Professional Corporation.

And I hereby appoint

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Unterschrift des Erfinders

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Datum

Second Inventor's signature

Date

Wohnsitz

Residence

Citizenship

Post Office Address

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).